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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,199	07/01/2003	Steven R. Levine	5658/932	4094
757	7590	12/07/2004	EXAMINER	
BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			COURSON, TANIA C	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/612,199	LEVINE ET AL.	
	Examiner Tania C. Courson	Art Unit 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07 September 2004.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-80 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) \_\_\_\_\_ is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 01 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 07SEP04.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5-8, 11-13, 26-28, 32-33, 43, 62 and 64-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Brazell et al (US 2003/0218469 A1, 1<sup>st</sup> interpretation).

Brazell et al. (1st interpretation) disclose in Figures 12a-12d, an object sensor and associated method comprising:

With respect to claims 1, 5-8 and 11-13:

- a) a surface (Fig. 12d, surface 200) and a connection structure on the surface (Fig. 12d, projections 210) to removably mount either the light generating device or the leveling device thereto (Fig. 12a, level 20), wherein the stud finder is operable when either the light generating device or the leveling device is mounted thereto (Fig. 12c);
- b) a switch on the surface for activating the stud finder (paragraph 68);
- c) wherein the surface comprises a flat surface (Fig. 12d) and a recess (Fig. 12d) for holding either the light generating device or the leveling device (Fig. 12d);

- d) wherein the connection structure comprises a latch (Fig. 12d, projections 210) for releasably holding the light generating device or the leveling device (Fig. 12d);
- e) wherein the connection structure is selected from the group consisting of a magnet, a magnetically attractive material, a hook fastener, a loop fastener, a tab, a slot, a flat surface, and a latch (Fig. 12d);
- f) further comprising a capacitive sensor for detecting objects behind walls (Fig. 17, capacitor plates 321, 322);
- g) wherein the surface is rotatably mounted relative to said connection structure (Fig. 12a);
- h) a housing adapted for receiving and retaining the light generating device or the leveling device (Fig. 12a) and for retaining components of the stud finder and a controller (Fig. 17, controller 11), and a switch (Fig. 17, switch 9) and at least one light source connected to the controller (paragraph 54)

With respect to claims 26-28 and 32-33:

- a) a stud finder (Fig. 12b) comprising a connection structure (Fig. 12d, projections 210), a surface (Fig. 12d, surface 200), and a leveling device (Fig. 12a, level 20) removably attached to said stud finder via said connection structure (Fig. 12a), wherein the stud finder is operable with the leveling device attached thereto (Fig. 12c);

- b) wherein the connection structure further comprises a latch (Fig. 12d, projections 210) for capturing a portion of the leveling device (Fig 12d);
- c) wherein the leveling device comprises a latch (Fig. 12d, recess 111) that engages the connection structure (Fig. 12d);
- d) further comprising a normally-open switch protruding through the surface (paragraph 68)
- e) further comprising at least one LED (paragraph 54).

With respect to claim 43:

- a) inserting a leveling device (Fig. 12a, level 20) into a structural connector (Fig. 12d, projections 210), the structural detector comprising a connection structure adapted to removably mount the leveling device thereto (Fig. 12 d, projections 210), and an exterior surface (Fig. 12d), placing the exterior surface against a wall (Fig. 12c), locating at least one concealed feature behind the wall using the structural detector while the leveling device is mounted thereto (Fig. 12c).

With respect to claims 62 and 64-65:

- a) a container defining a volume of space (Fig. 12a, case 300), a stud finder positioned within the volume of space (Fig. 12a, object sensor 10), the stud finder comprising a connection structure (Fig. 12d, projections 210), a leveling device positioned within the volume of space so as to be unattached

to the stud finder (Fig. 12a, level 20), wherein the connection structure can be used to removably mount the stud finder to the surface (Fig. 12a) and wherein the stud finder is operable with the leveling device mounted thereto (Fig. 12c);

- b) wherein the connection structure further comprises a latch (Fig. 12d, projections 210);
- c) wherein the leveling device comprises a latch that engages the connection structure (Fig. 12d, recess 111).

Regarding the term “latch”, the examiner utilizes the following broadest definition: “any of various devices in which mating mechanical parts engage to fasten but usually not to lock something” (Merriam-Webster Online Dictionary, 2004).

With respect to claim 12: the stud finder (Fig. 12a, object sensor 10) can be “rotatably mounted” into the leveling device (Fig. 12a, storage case 300) as well as being “relative to the connection structure”.

With respect to claim 32: a switch in which the contacts do not touch and require activation via a depression of a component is considered to be a “normally-open switch”.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4, 9-10, 29-31, 34, 44-51, 63 and 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazell et al. (1<sup>st</sup> interpretation) in view of Brazell et al. (2<sup>nd</sup> interpretation), Chen (EPO 416162 A1) and Wu (US 2004/0205972 A2).

Brazell et al. (1<sup>st</sup> interpretation) discloses an object sensor and associated method, as stated above in paragraph 2.

Brazell et al. (1<sup>st</sup> interpretation) further disclose an enclosure for a power source (Fig. 12b), a capacitive sensor for detecting objects (Fig. 17, capacitor plates 321-322), and at least one light for indicating a status of the stud finder (paragraph 54), and connecting a battery to at least one of the structural detector or the light generating device (paragraph 58).

Brazell et al. (1<sup>st</sup> interpretation) do not disclose a marking feature/device selected from the group consisting of a sharp point, a pencil, a pen, a felt tipped pen, a marking pin and a spring-biased marking pin, wherein the surface has at least one orifice for receiving at least one of a marking pin and a touch switch, comprising the step of marking the wall using a marking device attached to the structural detector, at least one spring-loaded marking pin and an actuator for the pin, wherein a connection structure comprises a magnet, a material that is magnetically attracted to a leveling device, wherein the leveling device further comprises at least one retractable pin and an actuator for the pin, wherein the leveling device comprises a light generating device that generates a laser beam in the shape of a fan with an asymmetric intensity

and further comprising sighting on a distant object using light from the light generating device before the step of marking the wall.

Brazell et al. (2<sup>nd</sup> interpretation) teach an object sensor and associated method that consists of a marking feature/device (Fig. 5a, aperture 35 and instrument 37) selected from the group consisting of a sharp point, a pencil, a pen, a felt tipped pen, a marking pin and a spring-biased marking pin (Fig. 5a, aperture 35 and instrument 37), wherein a surface has at least one orifice for receiving at least one of a marking pin and a touch switch (Fig. 5a, aperture 35 and instrument 37) and comprising the step of marking the wall using a marking device attached to the structural detector (Fig. 5a, aperture 35 and instrument 37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation), so as to include a marking feature, as taught by Brazell et al. (2<sup>nd</sup> interpretation), so as to provide an enhanced visual when locating an object during use of the object sensor.

Chen teaches a stud finding device that consists of at least one spring-loaded marking pin and an actuator for the pin (Fig. 4, marking element 6 and spring elements 4). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation), so as to include a spring-loaded marking pin, as taught by Chen, so as to facilitate the means of marking during use of the object sensor.

Wu teaches a laser level with a base that consists of wherein a connection structure comprises a magnet (Fig. 2, magnet 12), a material that is magnetically attracted (Fig. 2, magnet 12) to a leveling device (Fig. 1, levels 8-9 and baseplate 7), wherein the leveling device further comprises at least one retractable pin (Fig. 7, retractable pins 72) and an actuator for the pin (Fig. 6 & Fig. 7), wherein the leveling device comprises a light generating device (Fig. 2, laser 10) that generates a laser beam in the shape of a fan with an asymmetric intensity (Fig. 2) and further comprising sighting on a distant object using light from the light generating device before the step of marking the wall (paragraph 14). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation), so as to replace Brazell et al.'s (1<sup>st</sup> interpretation), connection structure (projections 210) with the connection structure (magnet 12), as taught by Wu, because both are well known alternate types of connection structures which will perform the same function, if one is replaced with the other, of connecting one object to another, and it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation), so as to include a retractable pin and a laser beam, as taught by Wu, so as to facilitate the means of attaching to an object during use of the leveling device and so as to provide an enhanced visual when locating an object during use of the leveling device.

5. Claims 14-24 and 52-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazell et al. (1<sup>st</sup> interpretation) in view of Wu.

Brazell et al. (1<sup>st</sup> interpretation) disclose an object sensor including the following:

With respect to claims 14, 18-19 and 23-24:

- a) a stud finder (Fig. 12b) comprising a connection structure (Fig. 12d, projections 210) and a surface (Fig. 12d, surface 200) and a device (Fig. 12a, level 20) removably attached to said stud finder via said connection structure (Fig. 12d), wherein the stud finder is operable with the device attached thereto (Fig. 12c);
- b) wherein the connection structure further comprises a latch (Fig. 12d, projections 210) for capturing a portion of the device (Fig. 12d);
- c) wherein the device comprises a latch (Fig. 12d, recess 111) that engages the connection structure (Fig. 12d);
- d) a normally-open switch protruding through the surface (paragraph 68);
- e) further comprising at least one LED (paragraph 54).

With respect to claims 52, 56, 58-59:

- a) a container defining a volume of space (Fig. 12a, case 300), a stud finder positioned within the volume of space (Fig. 12a, object sensor 10), the stud finder comprising a connection structure (Fig. 12d, projections 210), a device positioned within the volume of space so as to be unattached to the stud finder (Fig. 12a, level 20), wherein the connection structure can be used to removably mount the stud finder to the surface (Fig. 12a) and wherein the stud finder is operable with the device mounted thereto (Fig. 12c);
- b) wherein the device comprises a housing with a surface that extends along a first planar surface (Fig. 12d);

- c) wherein the connection structure further comprises a latch (Fig. 12d, projections 210);
- d) wherein the leveling device comprises a latch that engages the connection structure (Fig. 12d, recess 111).

Brazell et al. (1<sup>st</sup> interpretation) do not disclose wherein the device is a light generating device that generates a laser beam in the shape of a fan with an asymmetric intensity, wherein a connection structure comprises a magnet, a material that is magnetically attracted to a leveling device, wherein the leveling device further comprises at least one retractable pin and an actuator for the pin.

Wu teaches a laser level with a base that consists of wherein the device comprises a light generating device (Fig. 2, laser 10) that generates a laser beam in the shape of a fan with an asymmetric intensity (Fig. 2), wherein a connection structure comprises a magnet (Fig. 2, magnet 12), a material that is magnetically attracted (Fig. 2, magnet 12) to a leveling device (Fig. 1, levels 8-9 and baseplate 7), wherein the leveling device further comprises at least one retractable pin (Fig. 7, retractable pins 72) and an actuator for the pin (Fig. 6 & Fig. 7). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation), so as to include a retractable pin and a light generating device beam, as taught by Wu, so as to facilitate the means of attaching to an object during use of the device and so as to provide an enhanced visual when locating an object during use of the device and it would have been obvious

to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation), so as to replace Brazell et al.’s (1<sup>st</sup> interpretation), connection structure (projections 210) with the connection structure (magnet 12), as taught by Wu, because both are well known alternate types of connection structures which will perform the same function, if one is replaced with the other, of connecting one object to another.

Regarding the term “latch”, the examiner utilizes the following broadest definition: “any of various devices in which mating mechanical parts engage to fasten but usually not to lock something” (Merriam-Webster Online Dictionary, 2004).

With respect to claim 23: a switch in which the contacts do not touch and require activation via a depression of a component is considered to be a “normally-open switch”.

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brazell et al. (1<sup>st</sup> interpretation) and Wu as applied to claims 14-24 and 52-61, as stated above, and further in view of Brazell et al. (2<sup>nd</sup> interpretation).

Brazell et al. (1<sup>st</sup> interpretation) and Wu disclose an object sensor, as stated above in paragraph 5.

Brazell et al. (1<sup>st</sup> interpretation) and Wu do not disclose a marking device selected from the group consisting of a sharp point, a pencil, a pen, a felt tipped pen, a marking pin and a spring-biased marking pin.

Brazell et al. (2<sup>nd</sup> interpretation) teach an object sensor that consists of a marking device (Fig. 5a, aperture 35 and instrument 37) selected from the group consisting of a sharp point, a pencil, a pen, a felt tipped pen, a marking pin and a spring-biased marking pin (Fig. 5a, aperture 35 and instrument 37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation) and Wu, so as to include a marking device, as taught by Brazell et al. (2<sup>nd</sup> interpretation), so as to provide an enhanced visual when locating an object during use of the object sensor.

7. Claims 35-36, 39 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazell et al. (1<sup>st</sup> interpretation) in view of Brazell et al. (2<sup>nd</sup> interpretation).

Brazell et al. (1<sup>st</sup> interpretation) disclose an object sensor including the following:

With respect to claims 35-36 and 41-42:

- a) a structural detector (Fig. 12b) having a surface (Fig. 12d, surface 200) that comprises a connection structure (Fig. 12d, projections 210) to receive and removably mount (Fig. 12a) either the light generating device or the leveling device thereto (Fig. 12a), wherein the structural detector is operable with either the light generating device or the leveling device mounted thereto (Fig. 12c);
- b) wherein the structural detector further comprises a stud finder device (Fig. 12c);
- c) a switch protruding through the surface (paragraph 68).

Brazell et al. (1<sup>st</sup> interpretation) do not disclose a marking feature at least partially enclosed within the structural detector and wherein the surface of the structural detector has at least one orifice for receiving at least one of a marking pin and a switch.

Brazell et al. (2<sup>nd</sup> interpretation) teach an object sensor that consists of a marking feature (Fig. 5a, aperture 35 and instrument 37) at least partially enclosed within the structural detector (Fig. 5a) and wherein the surface of the structural detector has at least one orifice for receiving at least one of a marking pin and a switch (Fig. 5a, aperture 35 and instrument 37). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation), so as to include a marking feature, as taught by Brazell et al. (2<sup>nd</sup> interpretation), so as to provide an enhanced visual when locating an object during use of the object sensor.

8. Claim 37-38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazell et al. (1<sup>st</sup> interpretation) and Brazell et al. (2<sup>nd</sup> interpretation), as applied to claims 35-36, 39 and 41-42, as stated above, and further in view of Wu and Chen.

Brazell et al. (1<sup>st</sup> interpretation) and Brazell et al. (2<sup>nd</sup> interpretation) disclose an object sensor, as stated above in paragraph 7.

Brazell et al. (1<sup>st</sup> interpretation) and Brazell et al. (2<sup>nd</sup> interpretation) do not disclose wherein a connection structure further comprises a magnet for securing a light generating device or a leveling device, wherein a marking feature is actuatable to extend from the surface of the

structural detector and wherein the marking feature is acutatable by an actuator on the light generating device or the leveling device.

Wu teaches a laser level with a base that consists of a connection structure further comprising a magnet for securing a light generating device or a leveling device (Fig. 2, magnet 12). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation) and Brazell et al. (2<sup>nd</sup> interpretation), so as to replace Brazell et al.'s (1<sup>st</sup> and 2<sup>nd</sup> interpretations), connection structure (projections 210) with the connection structure (magnet 12), as taught by Wu, because both are well known alternate types of connection structures which will perform the same function, if one is replaced with the other, of connecting one object to another.

Chen teaches a stud finding device that consists of a wherein a marking feature is actuatable to extend from the surface of the structural detector (Fig. 4, marking element 6 and spring elements 4) and wherein the marking feature is acutatable by an actuator on the light generating device or the leveling device (Fig. 4, marking element 6 and spring elements 4). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the object sensor of Brazell et al. (1<sup>st</sup> interpretation) and Brazell et al. (2<sup>nd</sup> interpretation), so as to include a spring-loaded marking pin, as taught by Chen, so as to facilitate the means of marking during use of the object sensor.

9. Claims 68, 71-75 and 78-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardiner et al. (US 2004/0016058 A1) in view of Audet (US 6,266,006 B1).

Gardiner et al. disclose a multipurpose device, including the following:

- a) a stud finder comprising a connection structure, a surface;
- b) wherein the connection structure is selected from the group consisting of a magnet, a magnetically attractive material, a hook fastener, a loop fastener, a tab, a slot, a flat surface, and a latch;
- c) further comprising a controller and a capacitive sensor and at least one light source connected to the controller;
- d) further comprising a light generating device mounted to the connection structure;
- e) wherein the light generating device comprises a connection structure complementary to the connection structure of the stud finder.

Gardiner et al. do not disclose the following:

- a) a normally-open switch protruding through the surface.

Audet teaches a detecting device that consists of a normally-open switch protruding through the surface (Fig. 1, push button 62). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the multipurpose device of Gardiner et al., so as to include a switch, as taught by Audet, so as to facilitate activating the device during use of the device.

With respect to claims 68 and 75: a switch in which the contacts do not touch and require activation via a depression of a component is considered to be a “normally-open switch”.

10. Claims 69-70 and 76-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardiner et al. and Audet, as applied to claims 68, 71-75 and 78-80 as stated above, and further in view of Chen.

Gardiner et al. and Audet disclose a multipurpose device as stated above in paragraph 9. They do not disclose the following:

- a) a marker selected from the group consisting of a sharp point, a pencil, a pen, a felt-tipped pen, a marking pin and a spring-biased marking pin;
- b) wherein the marker is contained within the device.

Chen teaches a stud finding device that consists of a marker selected from the group consisting of a sharp point, a pencil, a pen, a felt-tipped pen, a marking pin, and a spring-biased marking pin (Fig. 4, marking element 6) and wherein the marker is contained within the device (Fig. 4). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the multi-purpose device of Gardiner et al., so as to include a marker, as taught by Chen, so as to facilitate the means of marking during use of the device.

***Response to Arguments***

11. Applicant's arguments filed September 7, 2004 have been considered but are moot in view of the new ground(s) of rejection.
  
12. As stated above, with respect to the term "a normally open switch", a switch in which the contacts do not touch and require activation via a depression of a component is considered to be a "normally-open switch". The exterior structural components that house a circuitry do not affect the operation of the circuitry, thus a switch that turns on and off via a push button or a switch is considered to be a "normally open switch".

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art cited on PTO-892 and not mentioned above disclose a detecting device:  
Snyder (US 2003/0005590 A1)  
Green (US 5,531,031)  
Bridy (US 2,512,135)

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tania C. Courson whose telephone number is (571) 272-2239. The examiner can normally be reached on Monday-Friday from 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached on (571) 272-2245.

The fax number for this Organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DIEGO F.F. GUTIERREZ  
SUPERVISORY PATENT EXAMINER  
GROUP ART UNIT 2859

TCC  
November 29, 2004

CHRISTOPHER W. FULTON  
PRIMARY EXAMINER